

**Amendments to the Drawings:**

Simultaneously there are filed with the Official Draftsperson sheets of drawings including changes to Figs. 1-6. These sheets, which include Figs. 1-6, replace the original sheets including Figs. 1-6. The replacement sheets correct the hand-drawn portions of the original sheets. Copies are attached for the Examiner's convenience.

## **REMARKS**

Claims 1-14 are rejected. Claims 1 and 10 have been amended. Claims 2, 8, 9 and 11 are canceled. Claims 15-22 are newly added. Claims 1, 3-7, 10 and 12-22 are presently pending in the application. Favorable reconsideration of the application in view of the following remarks is respectfully requested.

The basis for the amendment to claim 1 can be found in claim 2 as originally filed as well as on page 12, lines 20-25 and page 11, Table II of the specification as originally filed. The basis for newly added claims 15 and 21 can be found on page 8, lines 2-3 of the specification as originally filed. The basis for newly added claims 16 and 22 can be found on page 15, line 31 – page 16, line 3 of the specification as originally filed. The basis for newly added claim 17 can be found in claims 1, 2, 8 and 10 and on page 13, lines 19-24 of the specification as originally filed. The basis for newly added claim 18 can be found in claim 3 and on page 15, lines 25-30. The basis for newly added claim 19 can be found in claim 12 and on page 12, lines 7-9 of the specification as originally filed. The basis for newly added claim 20 can be found in claim 13 and on page 12, line 9 of the specification as originally filed.

### **Specification Objection:**

In section 1 of the Office Action mailed September 23, 2005 the Examiner has objected to the disclosure for the spelling of potassium in Table II.

Applicants thank the Examiner for pointing out this spelling informality. The specification has been appropriately amended to eliminate this spelling informality. Therefore, it is respectfully requested that this objection be withdrawn.

### **Drawings Objection:**

In section 2 of the Office Action mailed September 23, 2005 the Examiner has objected to the drawings because they have been hand drawn. Applicants have enclosed replacement sheets in compliance with 37 CFR 1.121(d) to replace the original drawings. Therefore it is respectfully requested that this objection be withdrawn.

### **Double Patenting:**

In sections 3 and 4 of the Office Action mailed September 23, 2005 the Examiner has provisionally rejected claims 1-14 under the judicially created

doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 and 17-19 of copending Application No. 10/642,779. In accordance with 37 CFR 1.321(c) enclosed is a Terminal Disclaimer which is believed to overcome this double patenting rejection. It is respectfully requested that this rejection be reconsidered and withdrawn in light of the Terminal Disclaimer filed over Application No. 10/642,779.

**Claim Rejections under 35 U.S.C. § 102:**

In section 6 of the Office Action mailed September 23, 2005 the Examiner has rejected claims 1, 3-5, 8 and 11-14 under 35 U.S.C. § 102(e) as being anticipated by Ohtsu et al. (U.S. 2004/0007169). Claim 2 has not been rejected as being anticipated by Ohtsu. Accordingly, the independent claims of the instant invention as amended now include all the limitations of claim 2. Therefore, it is respectfully requested that this rejection is now moot and be should withdrawn.

In section 7 of the Office Action mailed September 23, 2005 the Examiner has rejected claims 1, 3-8 and 11-14 under 35 U.S.C. § 102(e) as being anticipated by Sudarshan et al. (U.S. 2004/0105980). Claim 2 has not been rejected as being anticipated by Sudarshan. Accordingly, the independent claims of the instant invention as amended now include all the limitations of claim 2. Therefore, it is respectfully requested that this rejection is now moot and be should withdrawn.

In section 8 of the Office Action mailed September 23, 2005 the Examiner has rejected claims 1-6, 8, 9, and 11-14 under 35 U.S.C. § 102(e) as being anticipated by Duarte et al. (U.S. 6,888,862). The Examiner indicates that Duarte discloses a core-shell nanoparticle composite article comprised of a ZnS core and a SiO<sub>2</sub> shell dispersed in PMMA. The Examiner states that Duarte discloses that the shell is made from a low refractive index material such that the shell's refractive index is less than the host's refractive index. The Examiner further states that the core is made from a high refractive index material (col. 7, lines 29-35). This rejection is respectfully traversed.

Regarding independent claim 1 the present invention relates to a nanocomposite optical plastic article with a core shell nanoparticulate material where the core has a greater index of refraction than the plastic host, which has a greater index of refraction than the shell. The core consists of nanoparticulate material from the list of ALON, aluminum oxide, beryllium oxide, cadmium sulfide, calcium carbonate, diamond, magnesium aluminate, magnesium fluoride,

magnesium oxide, potassium titano phosphate, silica, tellurium oxide, yttrium oxide and zinc selenide.

Regarding independent claim 17 the present invention relates to a nanocomposite optical plastic article with a core shell nanoparticulate material. The nanoparticulate material is made from a zinc sulfide core and magnesium fluoride shell. The zinc sulfide core has a greater index of refraction than the plastic host, which has a greater index of refraction than the magnesium fluoride shell.

A claim is anticipated under 35 U.S.C. § 102(e) only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference. Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicants have amended the claims to include the limitation that the nanoparticulate material core has a greater index of refraction than the plastic host, which has a greater index of refraction than the shell. Duarte discloses a gain medium for producing a light emission in a laser. Duarte discloses a core-shell composite nanoparticle arrangement where the shell is made from a material with a low refractive index. Specifically, Duarte states that the shell's refractive index is lower than the host's refractive index. Duarte discloses that the core is made from a material with a high refractive index. However, Duarte fails to expressly or inherently disclose that the core has a higher refractive index than the host's refractive index as claimed in the instant invention as amended. Duarte only specifies that the shell is made from a material with a low refractive index that is less than the host's refractive index, and that the core is made from a material with a high refractive index. Duarte fails to disclose any correlation between the core material's refractive index and the host's refractive index. The present invention claims a core that has a higher refractive index than the host material, which is not disclosed by the reference. Therefore, it is respectfully urged that the reference fails to disclose all of the claimed limitations of the instant invention as amended, and it is respectfully requested that this rejection under 35 U.S.C. § 102(e) be reconsidered and withdrawn.

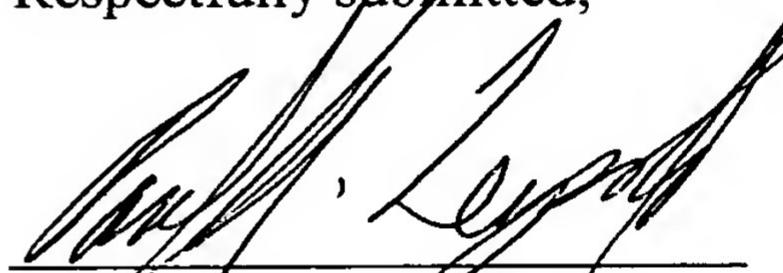
**Information Disclosure Statement:**

In section 9 of the Office Action mailed September 23, 2005 the Examiner states that the information disclosure statement fails to comply with 37 CFR

1.98(a)(1) for failing to include the application number on each page of the list. Applicants thank the Examiner for placing the information disclosure statement in the application file and considering the information for examination. Applicants apologize for any inconvenience this may have caused.

It is believed that the foregoing is a complete response to the Office Action and that the claims are in condition for allowance. Therefore, it is respectfully requested that the above amendments be entered, the objections and rejections under 35 U.S.C. § 102 be reconsidered and withdrawn and that this application receive an early Notice of Allowance.

Respectfully submitted,



\_\_\_\_\_  
Attorney for Applicant(s)  
Registration No. 26,664

Paul A. Leipold/rgd  
Rochester, NY 14650  
Telephone: 585-722-5023  
Facsimile: 585-477-1148

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.